(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 29 January 2004 (29.01.2004)

(10) International Publication Number WO 2004/009237 A3

(51) International Patent Classification7:

A01N 1/02

(21) International Application Number:

PCT/US2003/022906

(22) International Filing Date:

22 July 2003 (22.07.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/400,486

22 July 2002 (22.07.2002) US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:

US

60/400,486 (CIP)

Filed on

22 July 2002 (22.07.2002)

- (71) Applicant (for all designated States except US): XY, INC. [US/US]; 1108 North Lemay Avenue, Fort Collins, CO 80524 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): LINDSEY, Allison, C. [US/US]; c/o XY, Inc., 1108 North Lemay Avenue, Fort Collins, CO 80524 (US). SCHENK, John, L. [US/US]; c/o XY, Inc., 1108 North Lemay Avenue, Fort Collins, CO 80524 (US).
- (74) Agent: MILES, Craig, R.; Santangelo Law Offices, P.C., 125 South Howes, Third Floor, Fort Collins, CO 80521 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to the identity of the inventor (Rule 4.17(i)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 22 April 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: SPERM CELL PROCESS SYSTEM

(57) Abstract: A semen or sperm cell process system to maintain or enhance the biological, chemical, physical, physiological, or functional attributes of sperm cells within the context of various collecting, handling, storage, transportation, separation, or insemination procedures.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/22906

A. CLASSIFICATION OF SUBJECT MATTER		
IPC(7) : A01N 1/02 US CL : 435/2: 424/537		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols) U.S.: 435/2; 424/537		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EAST		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No.	
х	US 6,395,305 B1 (BUHR et al) 28 May 2002 (28.	05.2002), see entire document. 1-33
Further documents are listed in the continuation of Box C. See patent family annex.		
• S ₁	pecial categories of cited documents:	"I" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the
	defining the general state of the art which is not considered to be lar relevance	principle or theory underlying the invention
	plication or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step
"L" document establish (specified)	which may throw doubts on priority claim(s) or which is cited to the publication date of another citation or other special reason (as	when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination
"O" document	referring to an oral disclosure, use, exhibition or other means	being obvious to a person skilled in the art
P document published prior to the international filing date but later than the priority date claimed		*&* document member of the same patent family
•		Date of mailing of the international search report
14 December 2003 (14.12.2003)		
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents		Althorized officer. D. Roberto 407
P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230		Telephone No. (703) 308-1235

Form PCT/ISA/210 (second sheet) (July 1998)